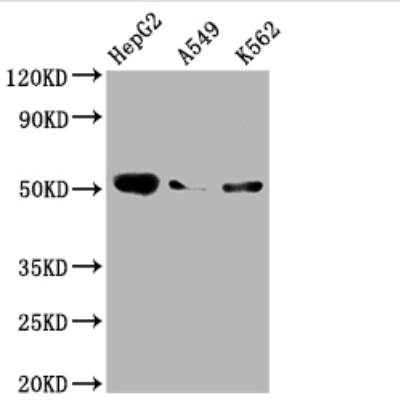
F9 Recombinant Monoclonal Antibody

Product Code	CSB-RA923075A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P00740
Immunogen	A synthesized peptide derived from human Factor IX
Species Reactivity	Human
Tested Applications	ELISA, WB; Recommended dilution: WB:1:500-1:5000
Relevance	Factor IX is a vitamin K-dependent plasma protein that participates in the intrinsic pathway of blood coagulation by converting factor X to its active form in the presence of Ca(2+) ions, phospholipids, and factor VIIIa.
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Cardiovascular; Immunology
Gene Names	F9
Clone No.	3G3

Image



Western Blot
Positive WB detected in: HepG2 whole cell lysate, A549 whole cell lysate, K562 whole cell lysate
All lanes: Factor IX antibody at 1:2000
Secondary
Goat polyclonal to rabbit IgG at 1/50000 dilution
Predicted band size: 52 kDa
Observed band size: 52 kDa

Description

B cells were isolated from the animal who received immunization with a synthetic peptide derived from human F9 and then fused with myeloma cells to generate hybridomas. The variable light and heavy domains of the hybridomas

were sequenced to construct a vector for a recombinant generation. The F9 monoclonal antibody gene-containing vector was transfected into cells for cultivation, and the F9 recombinant monoclonal antibody was isolated and purified using affinity chromatography from the cell culture supernatant. The purified antibody was specifically tested for human F9 protein detection in ELISA and WB applications.

Coagulation factor IX (F9) is a protein that plays an important role in blood clotting. It is synthesized in the liver and circulates in the bloodstream in an inactive form. When a blood vessel is damaged, a series of reactions is initiated that leads to the activation of factor IX to its active form, factor IXa. Activated factor IX, together with activated factor VIII and calcium ions, forms a complex that activates factor X to factor Xa, which in turn leads to the conversion of prothrombin to thrombin. Thrombin then converts fibrinogen to fibrin, which forms the basis of a blood clot. Mutations in the gene encoding factor IX can lead to hemophilia B, a bleeding disorder characterized by a deficiency in this clotting factor.